



Bardoc Gold Ltd (BDC.ASX)

Unite and conquer

Event:

- Coverage of Bardoc Gold Ltd (BDC).

Investment Highlights:

- Building scale and efficiency in proximity.** BDC is a developer and explorer in the eastern Goldfields, WA, which is seeking to extract synergies and scale from the proximity of gold deposits and former mine it has acquired to justify a stand-alone operation, known as the Bardoc Gold Project (Bardoc).
- 3.0Moz in JORC Resources.** Bardoc's Global JORC Resource is 49.4Mt at 1.9g/t for 3.02Moz of gold, with 2.1Moz open pit and 0.96Moz amenable to underground. The three cornerstone deposits are Aphrodite, Excelsior, and Zoroastrian, which together account for 2.5Moz, or 83% of Resources, the remainder being 15 satellite deposits.
- PFS demonstrates robust metrics.** A PFS on Bardoc was released in March this year, key highlights being a 7.8 year LOM at average 135koz gold production, with AISC of A\$1,220/oz. NPV₈ post-tax was \$252M with IRR 27%, assuming US\$1,449/oz (\$2,100/oz) gold price and A\$=US\$0.69.
- Metallurgy significantly derisked.** Historical mining and demonstrated >90% recoveries at Excelsior and Zoroastrian supported the PFS own recoveries. The key challenge historically has been Aphrodite refractory ore. BDC is addressing this by choosing to produce a gold concentrate, therefore reducing operational risk and capital and operating costs. Gold concentrate recoveries of 92% have been achieved by flotation.
- Utilising and sharing infrastructure.** Pre-production capex is \$142M, mostly due to plant and pre-strip. Bardoc is located 35km from Kalgoorlie and straddles the Goldfields Highway, providing ready access to labour, services, and supplies.
- Significant exploration opportunities present.** Only 1/3 of Bardoc's global Resources were considered in the PFS. BDC has ample exploration opportunities both at its cornerstone deposits and satellites to grow Resources by size and quality, thereby extending Bardoc's mine life. Mineralisation exists outside resources and many deposits are open at depth and strike.
- Targeting mining and construction 3QCY21.** Key milestones for BDC are DFS and permitting in 1QCY21, and FID and mining in 3QCY21.

Earnings and Valuation:

- We value BDC at \$0.16/share, based on 0.8x our NPV of the Bardoc project.** We forecast first mining and capex to commence in 1QFY23, and first revenues in FY23e.

Recommendation:

- We recommend BDC as Buy, with a 12-month price target of \$0.16/share, based on our risked NPV.**
- Key catalysts for the stock include further Resource upgrades, Binding offtake for gold concentrate; DFS; Permitting approvals; FID; Project Funding; Commencement of construction and mining; and M&A.**

Disclosures

The analyst does not own BDC securities.

Foster Stockbroking and associated entities (excluding Cranport Pty Ltd) do not own BDC securities.

Cranport Pty Ltd owns 1,000,000 BDC shares and 625,000 BDC options exercise price \$0.16 expiry 15 December 2020. Refer details end of report.

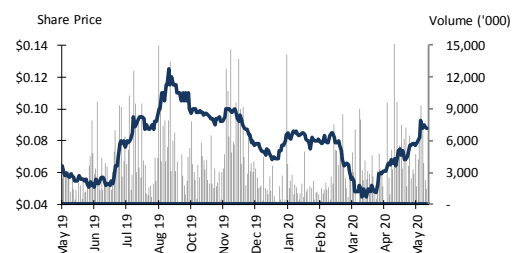
Recommendation	Buy			
Previous	n/a			
Risk	High			
Price Target	\$0.16			
Previous	n/a			
Share price (A\$)	\$ 0.090			
ASX code	BDC			
52 week low-high	0.044-0.13			
Valuation (A\$/share)	\$ 0.16			
Methodology	risked NPV			
Capital structure				
Shares on Issue (M)	1,396			
Performance rights (M)	60			
Options (M)	118			
Market cap (A\$M)	126			
Net cash & investments (debt) (A\$M)	14			
Fully diluted EV (A\$M)	128			
Ave daily volume ('000)	3,746			
Earnings Y/e Jun A\$M	FY19a	FY20e	FY21e	FY22e
Sales adj	0.0	0.0	0.0	0.0
EBITDA adj.	-9.2	-9.2	-10.0	-11.0
NPAT reported	-38.8	-11.8	-7.0	-7.7
NPAT adj	-9.1	-9.3	-7.0	-7.7
EPS adj. \$	-0.01	-0.01	0.00	0.00

* Adj = underlying

Substantial shareholders

Buttigeig Group	6.4%
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Share price graph



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Bardoc Gold Ltd (BDC)

Full Year Ended 30 June

Profit and Loss A\$M	2019a	2020e	2021e	2022e
Sales	0.1	0.1	0.1	0.1
Operating Costs	9.3	9.3	10.1	11.1
Underlying EBITDA	-9.2	-9.2	-10.0	-11.0
D&A	0.1	0.2	0.2	0.2
Underlying EBIT	-9.3	-9.4	-10.1	-11.1
Net Interest exp / (income)	-0.2	0.0	-0.1	-0.2
Profit before tax	-9.1	-9.3	-10.0	-10.9
Tax exp / (benefit)	0.0	0.0	-3.0	-3.3
Underlying NPAT attributable	-9.1	-9.3	-7.0	-7.6
Non-recurring items	-29.7	-2.4	0.0	0.0
Reported NPAT attributable	-38.8	-11.8	-7.0	-7.6

Underlying EPS diluted (\$)	-0.01	-0.01	0.00	0.00
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Cashflow A\$M	2019a	2020e	2021e	2022e
Underlying EBITDA	-9.2	-9.2	-10.0	-11.0
Change in WC	0.8	-0.8	0.1	0.1
Net interest	0.2	0.0	0.1	0.2
Tax	0.0	0.0	3.0	3.3
Share payments	0.1	0.6	0.6	0.6
Other	-0.7	0.0	0.0	0.0
Operating Cashflow	-8.7	-9.3	-6.1	-6.7

PP&E & capitalised exploration	0.0	-0.2	0.0	0.0
Asset sales	0.0	0.0	0.0	0.0
Acquisitions	-0.9	-0.1	0.0	0.0
Investments	-3.4	-4.9	0.0	0.0
Investing Cashflow	-4.4	-5.2	0.0	0.0

Equity issue	12.0	15.2	10.0	72.0
Debt proceeds	1.0	0.0	0.0	108.0
Debt repayments	-1.3	-0.3	0.0	0.0
Other	-0.2	-0.6	0.0	0.0
Financing Cashflow	11.6	14.3	10.0	180.0

Net Cashflow	-1.5	-0.2	3.9	173.3
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Balance Sheet A\$M	2019a	2020e	2021e	2022e
Cash	1.3	1.1	5.0	178.3
Investments	6.4	11.3	11.3	11.3
Receivables	0.4	0.4	0.4	0.4
PPE & capitalised exploration	0.4	0.4	0.2	0.1
Other	0.1	2.0	2.0	2.0
Total Assets	8.5	15.1	18.9	192.0

Accounts payable	1.6	0.8	0.8	0.9
Provisions	6.0	0.8	0.8	0.9
Debt	1.7	1.4	1.2	108.9
Other	0.0	6.3	7.1	7.8
Total Liabilities	9.2	10.0	10.7	119.5

Capital & reserves	115.7	130.9	140.9	212.9
Retained earnings	-125.7	-132.7	-140.3	-159.2
Total Equity	5.2	8.2	72.6	53.7

Company Valuation

DCF, WACC 10% nominal

Segment	Unrisked		Risked	
	A\$M	A\$/share	A\$M	A\$/share
Bardoc PFS	216.1	\$0.08	172.9	\$0.07
Bardoc Resources ex-PFS	254.5	\$0.10	127.3	\$0.05
Woodie Woodie	10.0	\$0.00	10.0	\$0.00
Corporate	-25.5	-\$0.01	-20.4	-\$0.01
Net cash & investments	14.2	\$0.01	14.2	\$0.01
Cash from in money options at val	18.2	\$0.01	14.6	\$0.01
Cash from future equity	82.0	\$0.03	65.6	\$0.03
Total	569.5	\$0.22	384.1	\$0.16
Shares now M	1,396		1,396	
Performance rights	60		48	
Options-in-money at valuation M	118		94	
Shares future issue M	1,012		810	
Fully diluted shares M	2,586		2,348	

Commodity Assumptions

	Unit	2019a	2020e	2021e	2022e
Prices					
Gold US\$/oz	US\$/oz	1,266	1,468	1,565	1,574
A\$	US\$	0.73	0.69	0.70	0.72
Gold production	koz	0	0	0	0

JORC Resources - Gold

	Ore Mt	Grade g/t	old metal oz
Aphrodite	24.1	2.2	1,681
Zoroastrian	7.1	2.3	515
Excelsior	8.5	1.2	320
Mulwarrie	0.9	2.8	79
Mayday North	1.4	1.7	79
Bulletin South	0.8	2.1	57
Duke North	1.6	1.0	53
Talbot North	0.8	1.8	47
North Kanowna Star	0.7	1.4	32
Lochinvar	0.5	1.7	27
Nerrin Nerrin	0.7	1.3	26
Vettersburg South	0.6	1.5	26
El Dorado	0.5	1.5	23
South Castlereagh	0.5	1.4	21
Windanya	0.4	1.5	17
Grafters	0.3	1.3	14
Ophir	0.1	0.9	5
Total Bardoc Gold Project	49.4	1.9	3,022

Capital structure

	M
Ordinary shares	1,396
Options	118
Performance rights	60
Fully diluted	1,574

Source: Company; Foster Stockbroking estimates

INTRODUCTION

Developing and consolidating gold assets in the Eastern Goldfields

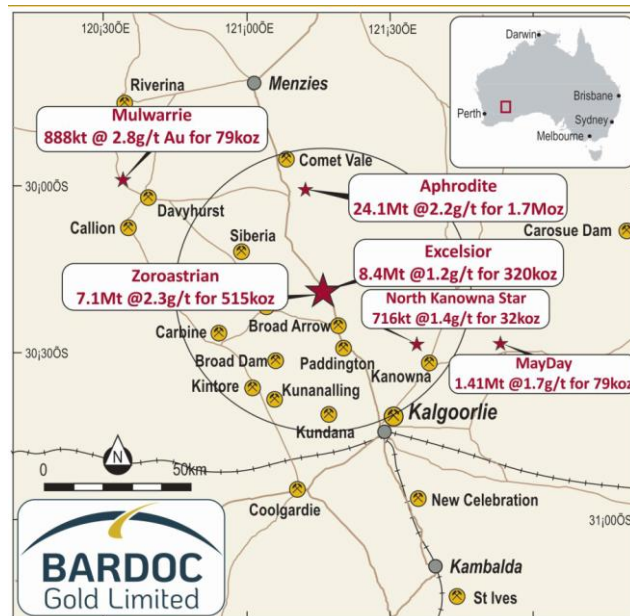
- Bardoc Ltd (BDC), formerly Spitfire Materials (SPI), is a Western Australia gold explorer and developer, whose major projects were acquired from the 2018 acquisition of Aphrodite Gold Ltd (AQQ) and the subsequent merger later that year with Excelsior Gold (EXG). The rationale was extracting scale and synergies from the proximity of the gold projects to each other, which lie in the Eastern Goldfields, including enough to justify a stand-alone operation. Other gold deposits in the area have since been acquired. The company recently released a PFS on the Bardoc Gold Project, and is currently undertaking a DFS.

BARDOC GOLD PROEJCT (100% BDC)

18 deposits located in close proximity

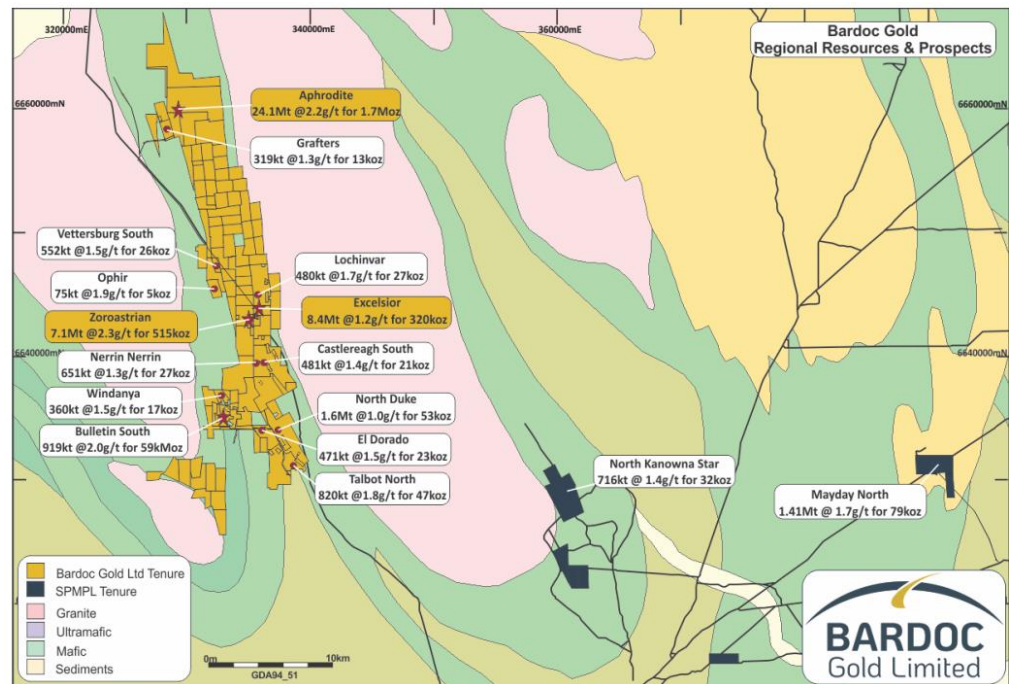
- BDC’s owns 18 gold deposits in the Eastern Goldfields which collectively form the Bardoc Gold Project (Bardoc). Most deposits are located 35km to 70km north of Kalgoorlie on the Goldfields Highway in the Bardoc Tectonic Zone. The projects sit on 250km² of land, most of it contiguous, and runs north for 50km.
- The three cornerstone deposits of Bardoc are Aphrodite, Excelsior, and Zoroastrian, collectively possessing both greenfield and brownfield potential.
- Numerous gold mines and plants are found in the region, including those owned by KCGM, Northern Star Resources, Norton Gold Fields (Zijin Mining), Evolution Mining, and Ora Banda.

Figure 1: Bardoc Gold deposit locations



Source: Company.

Figure 2: Bardoc tenements.



Source: Company.

GEOLOGY

- Bardoc is situated in the Kalgoorlie Terrane of the Yilgarn Craton, within the Bardoc Tectonic Zone and the cross-cutting Black Flag fault system within the Norseman-Wiluna greenstone belt. The area hosts several significant gold deposits including Paddington to the south, and the Golden Mile.

RESOURCES

3.02Moz of gold

- BDC's global JORC Resources total 49.4Mt at 1.9g/t Au for 3.02Moz of gold. Measured and Indicated Resources comprise 59% of total, or 29.0Mt @ 1.9g/t Au for 1.78Moz Au. JORC Resources have been divided by whether the ore is likely to be economically amenable to open pit or underground mining, with the former mostly comprising those resources from surface to 200m at cut-off grade of 0.5g/t, and underground below 200m depth mostly with cut-off grade of 2.0g/t (Figure 3).
- Open pitable resources defined were 42.2Mt @ 1.5g/t Au for 2.06Moz, while underground amenable resources totaled 7.2Mt @ 4.1g/t for 962koz.

Aphrodite, Excelsior, and Zoroastrian account for 83% of Resource

- The largest deposit is Aphrodite comprising 56% of total JORC ounces, or 1.7Moz, with the other cornerstone projects Zoroastrian and Excelsior accounting for 17% and 11%, or 0.5Moz and 0.3Moz. The three collectively represent 83%, or 2.52Moz.



Figure 3: Bardoc JORC Resources

Deposit	Type	Cut-Off (g/t Au)	MEASURED			INDICATED			INFERRED			TOTAL RESOURCES		
			Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)
Aphrodite	OP	0.4	-	-	-	11,622	1.7	619	6,676	1.4	298	18,288	1.6	916
Aphrodite	UG	2.0	-	-	-	3,458	3.9	436	2,391	4.3	330	5,848	4.1	765
Aphrodite	TOTAL		-	-	-	15,080	2.2	1,055	9,067	2.2	628	24,136	2.2	1,681
Zoroastrian	OP	0.4	-	-	-	3,862	1.8	229	1,835	1.5	89	5,698	1.7	318
Zoroastrian	UG	2.0	-	-	-	580	4.4	82	823	4.3	114	1,403	4.4	197
Zoroastrian	TOTAL		-	-	-	4,442	2.2	311	2,658	2.4	203	7,101	2.3	515
Excelsior	OP	0.4	-	-	-	6,729	1.2	266	1,749	1.0	54	8,478	1.2	320
Mulwarrie	OP	0.5	-	-	-	-	-	-	881	2.8	79	881	2.8	79
Mayday North	OP	0.5	-	-	-	-	-	-	1,410	1.7	79	1,410	1.7	79
Bulletin South	OP	0.4	152	2.2	11	546	2.1	36	150	2.1	10	849	2.1	57
Duke North	OP	0.4	-	-	-	851	1.0	28	795	1.0	25	1,646	1.0	53
Talbot North	OP	0.4	-	-	-	698	1.8	40	123	1.8	7	820	1.8	47
North Kanowna Star	OP	0.5	-	-	-	-	-	-	716	1.4	32	716	1.4	32
Lochinvar	OP	0.4	-	-	-	423	1.8	24	57	1.6	3	480	1.7	27
Nerrin Nerrin	OP	0.5	-	-	-	-	-	-	651	1.3	26	651	1.3	26
Vettersburg South	OP	0.6	-	-	-	-	-	-	552	1.5	26	552	1.5	26
El Dorado	OP	0.5	-	-	-	-	-	-	471	1.5	23	471	1.5	23
South Castlereagh	OP	0.5	-	-	-	111	1.6	6	369	1.3	15	481	1.4	21
Windanya	OP	0.6	-	-	-	-	-	-	360	1.5	17	360	1.5	17
Grafters	OP	0.5	-	-	-	-	-	-	319	1.3	14	319	1.3	14
Ophir	OP	0.6	-	-	-	-	-	-	75	1.9	5	75	1.9	5
TOTAL RESOURCES			152	2.3	11	28,880	1.9	1,766	20,403	1.9	1,247	49,426	1.9	3,022

Source: Company.

- Maiden JORC Reserves were declared as part of the PFS, totaling 10.4Mt for 790koz at 2.4g/t Au, from the Aphrodite, Excelsior, Zoroastrian, and Bulletin South deposits.

Figure 4: Bardoc JORC Reserves.

PROJECT	PROBABLE			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	3,540	1.4	160
Zoroastrian OP	350	1.9	20	350	1.9	20
Aphrodite OP	2,830	2.3	210	2,830	2.3	210
Bulletin OP	520	2.0	30	520	2.0	30
Zoroastrian UG	810	3.2	80	810	3.2	80
Aphrodite UG	2,380	3.7	290	2,380	3.7	290
TOTAL	10,430	2.4	790	10,430	2.4	790

Source: Company.

PFS Highlights

7.8 year LOM at 135koz pa gold production

- A PFS on Bardoc was released in March 2020, with key highlights being a 7.8 year LOM at average gold production of 135koz (peak of 170koz in Year 5), employing a 1.8Mtpa processing plant. AISC were \$1,220/oz and pre-production capex \$142M with 12 month construction. The project yielded an NPV₈ real post-tax of \$252M, IRR of 27%, and payback of 2.67 years. A gold price of A\$2,100/oz (US\$1,449/oz) at A\$ of 0.69 were assumed.

Figure 5: Bardoc PFS Highlights

Parameter	Unit	Value
LOM	Years	7.8
Ore processed	Mtpa	1.8
Gold production average	kozpa	135
Recovery	%	93%
C1 cash costs	\$/oz	978
AISC – A\$	\$/oz	1,220
AISC – US\$	US\$/oz	842
Pre-production capex	\$M	142.4
Strip ratio	ratio	10.6:1
Gold price – A\$	A\$/oz	2,100
Gold price – US\$	US\$/oz	1,449
A\$	US\$	0.69
Post tax cash flow LOM	\$M	426
NPV ₈ post-tax	\$M	252
IRR	%	27%
Payback	Yrs	2.67

Source: Company.

- The PFS was based on mining four deposits – Aphrodite, Excelsior, Zoroastrian, and Bulletin South, with open pit mining at each, plus underground at Aphrodite and Zoroastrian. JORC Reserves represented 77% of LOM, with 83% of mined material sourced from Indicated, 13% from Inferred, and 4% unclassified.

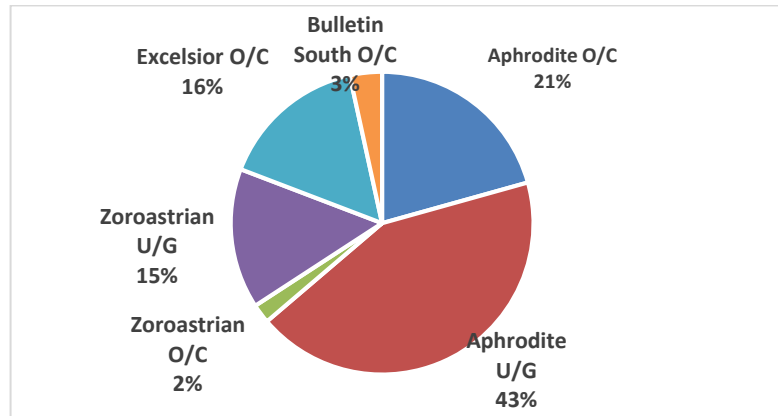
Figure 6: Bardoc Resources mined for PFS

PROJECT	INDICATED			INFERRED			TOTAL		
	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)	Tonnes (kt)	Grade (g/t)	Gold (koz)
Excelsior OP	3,540	1.4	160	210	0.8	5	3,750	1.3	161
Zoroastrian OP	350	1.9	21	0	0.7	0	350	1.8	21
Aphrodite OP	2,830	2.3	210	20	3.0	2	2,840	2.3	211
Bulletin OP	520	2.0	34	30	1.2	1	550	2.0	35
Zoroastrian UG	830	3.4	89	550	3.6	63	1,380	3.4	153
Aphrodite UG	2,570	3.7	303	850	5.0	137	3,420	4.0	440
TOTAL	10,587	2.4	810	1,670	3.9	209	12,300	2.6	1,021

Source: Company.

- By deposit breakdown, Aphrodite accounts for 64% of gold production, followed by Zoroastrian and Excelsior (17% and 16%), with Bulletin South contributing only 3%. 58% of gold is to come from underground, and 48% from open cut.

Figure 7: Bardoc Gold Production by deposit and mine type



Source: Company; Foster Stockbroking estimates.

- Pit optimisations were undertaken at \$1,800/oz (US\$1,297/oz) gold price. Mining schedule prioritises free milling deposits to be mined first – Excelsior beginning Year 1 and Zoroastrian in Year 2, before accessing refractory material from Aphrodite in Year 3. Average ore mined over LOM is 1.75Mtpa, peaking at 3.0Mt in Year 6.

Zoroastrian

- The Zoroastrian open pit will be mined at the southern extension of the existing central pit and have strike of 590m and depth of 95m, with strip of 12.8:1 (t:t). Underground mining will commence at the southern end of the existing central pit with access via a portal. It will be a priority focus due to both free milling ore and not being constrained by the surrounding open pit mining.

Aphrodite

- The pit is designed to mine two lodes, Phi (Stage 1, western side) and Alpha (Stage 2, eastern side), which will create two mining areas and a natural saddle between them. Strike is 780m and depth 190m, with 13.0:1 strip. Underground mining will extend from the base of the proposed pit, and accessed off the northern end of Phi pit via a decline portal in fresh competent rock. It will commence post completion of the Stage 1 pit, and be in tandem with Stage 2 pit mining.

Excelsior

- The 750m strike length pit is located adjacent to Zoroastrian. Mining will include cut back of the previously mined pit. Pit depth will be 175m and strip 5.9 to 1.

Bulletin South

- Mining will include a cut back of an existing pit and will extend to depth of 125m and strike of 450m.

METALLURGY

Historical mining supports met

- The PFS contemplates a process plant is designed to treat both free milling and refractory ore in two stages. Stage 1 will consist of a conventional CIL processing with crusher and mills, while Stage 2 adds a flotation and thickener circuit for treating Aphrodite refractory ore in year 3.



The plant will be located at the Excelsior and Zoroastrian pits. LOM recovery is estimated to be 93%.

- While BDC undertook met work on all ore types for the PFS, historical mining at many deposits derisks the project's metallurgical recoveries. Excelsior, Zoroastrian, and Bulletin South are brownfield, with mining dating as far back to late 1890s at Excelsior and Zoroastrian, while the most recent mining of Excelsior and Zoroastrian pits was by Aberfoyle Gold in 1987-1991, and by EXG in 2015-2017. BDC's own tests support the free milling characteristics of these deposits, as does met work on Aphrodite oxide and transitional ore.

Aphrodite refractory – producing concentrate derisks execution

- 100% of the Aphrodite underground material is refractory, while 63% of the open pit is. The refractory ore is finely grained and intimately associated with pyrite and arsenopyrite. Given the ore is not amenable to standard CIL/CIP leach methods, the deposit has never been mined.
- BDC investigated the potential oxidative leaching processes available for the ore, but opted with a concentrate sale process. Flotation tests were conducted focused on production of a sulfide/gold concentrate that would be marketable for smelting and refining with grade of 70g/t and low arsenic content (2%-3%).
- The company is in discussion with potential offtake partners who have expressed interest in the concentrate, including terms on gold payabilities, penalties, and treatment charges. These indicated terms were used as a basis to optimise concentrate value and the target recovery of 92%.
- By producing gold concentrate instead of dore from refractory ore, Bardoc is derisked by significantly reduced capex and costs, as well as operating risk. The latter would have required the atmospheric Albion process, total pressure oxidation, or partial pressure oxidation. These all require intensive fine grinding and/or high pressure and temperatures, all of which are energy and capital intensive.
- Examples of Australian miners producing gold concentrate include Evolution Mining's (EVN) Mount Carlton in Queensland, where concentrate is sold to China, and Mandalay Resources (MND) at its Costerfield in Victoria. Other markets for concentrate are India, South Korea, and Japan.

INFRASTRUCTURE

Leveraging and sharing existing infrastructure

- Bardoc is located as close as 35km to Kalgoorlie, and would be supported by a residential workforce. The project tenements straddle the Goldfields Highway, a major transport route linking Kalgoorlie to the Menzies, Laverton, and Leonora mining regions, providing access to skilled labour, services, and supplies.
- Given Excelsior and Zoroastrian are located adjacently, infrastructure and services such as power, offices, workshops, fuel, communications, water, and underground ventilation fans can be shared. Due to the short mine life of Bulletin South and proximity to Excelsior and Zoroastrian, (8km), some facilities between these will be shared.
- Mining of Excelsior pit will extend across both the Goldfields Highway and the Kalgoorlie to Leonora rail line, with capex included in the PFS to re-align 3-4km of road and rail.
- Power for Excelsior, Zoroastrian, and the process plant will be supplied using compressed natural gas, while diesel will power Aphrodite.



- Tailings storage will integrate into the existing decommissioned tailings storage facility near Zoroastrian and Excelsior and adjacent to the process plant site.

CAPEX

- Pre-production capex of \$142.4M mostly comprises the Stage 1 process plant (\$73M) and pre-strip mining (\$53M), with the balance being infrastructure. LOM capex is \$354M, with Stage 2 processing plant, further pre-strip mining, and underground development being major items in addition to pre-production capex. Minimal infrastructure is required given access to existing transport routes and no requirement for camp or airstrip.

COSTS

- AISC of the project are \$1,220/oz LOM, ranging from \$1,045 for Excelsior open-pit to \$1,418/oz for Aphrodite open-pit. Aphrodite costs include the treatment and transport charges associated with sale of the gold concentrate.

Figure 8: Bardoc AISC by Mine

PROJECT	AISC (A\$/oz)
Aphrodite OP	\$1,418/oz
Zoroastrian OP	\$1,291/oz
Excelsior OP	\$1,045/oz
Bulletin South OP	\$1,211/oz
Aphrodite UG	\$1,196/oz
Zoroastrian UG	\$1,207/oz
Total/Average	\$1,220/oz

Source: Company.

PERMITTING

- While the project is covered by granted mining leases, including at Aphrodite, Excelsior, and Zoroastrian, approvals such as Mining Proposal Plans, Works Approval & Operating Licence, and licences for water exploration will be required.

EXPLORATION

Ample opportunities at cornerstone and satellite deposits

- Only 1/3 of BDC's global JORC resources were considered for mining in the PFS. We expect BDC has strong opportunity to increase its LOM in the DFS should it succeed in its various exploration campaigns.
- BDC is currently undertaking infill drilling to upgrade Inferred Resources, to underpin its targeted resource upgrade in 3QCY20. The cornerstone deposits Aphrodite, Excelsior, and Zoroastrian still have resources that lie outside the PFS, as well as mineralisation not in Resources, and are still open at depth and strike.
- Deposits such as Mulwarrie, South Castlereagh, Mayday North, and North Kanowna Star have granted mining leases, while Lady Kelly, Nerrin Nerrin, and South Castlereagh are all very close to Excelsior, Zoroastrian, and South Bulletin. This allows BDC to integrate the deposits quickly and efficiently into mining and processing should successful exploration at these justify it.



Potential for Mayday North to be a cornerstone deposit

- Of the satellite deposits, BDC is particularly excited about Mayday North, currently the 5th largest deposit by ounces, which has had historic open-pit mining demonstrating high recoveries. Located 50km east of Bardoc, it has potential for further open-pit and underground mining. BDC has defined an Exploration Target of 1.48Mt-2.22Mt at 2.0-2.4g/t Au for 96koz-171koz, comprising both shallow and deep resources to 400m depth from surface. If successful in converting the Target to Resources, the deposit could join Aphrodite, Excelsior, and Zoroastrian as a cornerstone deposit of Bardoc. The Target remains open at depth and down plunge.

M&A TO FURTHER ENHANCE SCALE

- BDC to date has demonstrated initiative in seeking to consolidate and build scale around its Bardoc Gold project. We believe that further opportunities may be exploited by the company as it seeks to increase scale, improve efficiencies, and realise synergies.

TIMELINE

BDC targets first mining and construction 3QCY21

- BDC is targeting first construction and mining 3QCY21. Our own assumption is more conservative, assuming 3QCY22. Key milestones targeted by BDC include:
 - 3QCY20: Resource update including from infill drilling at Zoroastrian and Aphrodite;
 - 4QCY20: Securing binding offtake for gold concentrate;
 - 4QCY20: Completion of met testwork on Aphrodite;
 - 1QCY21: DFS and final permitting; and
 - 3QCY21: Commencement of mining and project construction.

OTHER PROJECTS

Woodie Woodie manganese

- BDC owns the South Woodie Woodie Manganese Project in Western Australia, which has an Inferred Resource of 14.2Mt @ 13.3% Mn. However the project is not a core focus at this time as BDC focuses on Bardoc.

CORPORATE

- BDC had cash and investments of \$14.2M (comprising \$2.9M cash and \$11.3M in investments) at end 3QFY20. The company has no borrowings but does report its payable Franco Nevada royalty as debt (\$1.5M end 1HFY20) in its accounts as it was provided as an advance. \$0.25M pa is payable and advance until Aphrodite production commences, after which it can be offset against royalties on revenue.

**RISKED SHARE PRICE VALUATION: \$0.16**

- We value BDC at \$0.16/share on fully diluted share basis, inclusive of future equity requirements. We employ a WACC of 10% on nominal cash flows.
- Our valuation is underpinned by the Bardoc PFS, which we value at \$216M and then risk by 0.8x. The reasons for our lower NPV vs the BDC PFS are: inclusion of working capital; higher long-term A\$ of US\$0.73 vs \$0.69 in PFS; and discounting project cash flows to now instead to start of construction (we assume construction starts 1QFY23). These assumptions are partially offset by our use of higher gold price of US\$1,548/oz long-term vs US\$1,449 in BDC's PFS.
- We also attribute \$127M risked value to Resource lying outside the PFS, assuming half of these Resources can add incremental value, should they be mined, to the Bardoc plant and infrastructure.
- We assume \$180M funding (split 60:40 debt:equity) for Bardoc pre-production capex, working capital, corporate, studies, and exploration. We assume equity issued at 10% discount to current share price. Funding assumptions are purely our own and may differ markedly to that eventually realised by the company.

Figure 9: BDC Valuation

Segment	Unrisked		Risked		Risk Factor
	A\$M	A\$/share	A\$M	A\$/share	
Bardoc PFS	216	\$0.08	173	\$0.07	80%
Bardoc Resources ex-PFS	255	\$0.10	127	\$0.05	50%
Woodie Woodie	10	\$0.00	10	\$0.00	100%
Corporate	-26	-\$0.01	-20	-\$0.01	80%
Net cash & investments	14	\$0.01	14	\$0.01	100%
Cash from in money options at val	18	\$0.01	15	\$0.01	80%
Cash from future equity	82	\$0.03	66	\$0.03	80%
Total	569	\$0.22	384	\$ 0.16	74%
Shares now M	1,396		1,396		100%
Performance rights	60		48		80%
Options-in-money at valuation M	118		94		80%
Shares future issue M	1,012		810		80%
Fully diluted shares M	2,586		2,348		91%

Source: Foster Stockbroking estimates.

RECOMMENDATION – BUY, 12-MONTH SHARE PRICE TARGET \$0.16

- We initiate on BDC with a Buy and 12-month share price target of \$0.16/share based on our risked NPV.
- Key catalysts for the share price include Resource upgrades; Binding gold concentrate offtake agreements; DFS; Final permitting approvals; FID; Completion of project funding; Start of construction and mining; and M&A.



BOARD & MANAGEMENT

- **Tony Leibowitz. Non-Executive Chairman.** *FCA (Chartered Accountant).* Over 30 years' experience in corporate finance and investment banking. Previously Chairman of both Pilbara Minerals (PLS) and Chandler Macleod, and global partner at PriceWaterhouseCooper. Fellow of the Institute of Chartered Accountants in Australia.
- **Neil Biddle. Non-Executive Director.** *B.AppSc (Geology), MAusIMM.* A geologist with over 30 years' professional and management experience in the mining industry. Founding Director of PLS. Also formerly Managing Director (MD) of TNG Ltd, and Director of Border Gold NL, and Consolidated Victoria Mines.
- **John Young. Non-Executive Director.** *B.AppSc (Geology), MAusIMM.* Highly experienced geologist having worked on exploration and production projects including gold, uranium, tungsten, molybdenum, lithium, and tantalum. Previously CEO of Marenica Energy Ltd, and CEO of Thor Mining plc. Also served PLS as Exploration Manager, Technical Director, and Non-Executive Director. Currently Non-Executive Director of AIM listed Mosman Oil and Gas.
- **Peter Buttigeig. Non-Executive Director.** *B.AppSc (IT), Monash University.* IT professional with over 30 years' experience. Founder and MD of RS (Aust) Pty Ltd, a designer of IT systems for hospitality, mining, defence, and retail sectors. Previously Director of AQQ.
- **Rowan Johnston. Non-Executive Director.** *BSc (Mining Engineering).* Appointed 2018. Mining engineer and experienced Executive Director, most recently MD of EXG. Prior was Acting CEO and Executive Director-Operations for Mutiny Gold Ltd prior to takeover by Doray Minerals Ltd, as well as Executive Director of Integra Mining. Member of the Audit and Risk Committee.
- **Robert Ryan. CEO. Appointed 2019.** Experienced mining engineer, operations executive and company director. Previously was Director and GM of Norton Gold Field's Paddington mine, and also has worked at Barrick's Kanowna, Newmont's Bronzewing, and Gold Fields' St Ives mines.

RISKS

The following risks may negatively impact the BDC share price:

- **Geological risk.** BDC may not be able to economically exploit its JORC Resources or Reserves, which can negatively impact valuation and earnings.
- **Sovereign risk.** Any change in government, policy, legislation, or fiscal policy may markedly impact the ownership, financing, permitting, or economics of the company's projects.
- **Commodity price risk.** Declines in gold prices may negatively impact the potential to develop projects or reduce forecast earnings and the company's share price.
- **Development risk.** Problems may occur preventing BDC from developing its projects, including issues impacting permitting, financing, offtake, construction, or commissioning.
- **Financing risk.** To fund its projects the company may raise equity which may dilute shareholders, and/or borrow debt which it may not be able to service.
- **Economic and market risk.** Should global economic growth decline or share markets fall, this may reduce the appetite for both BDC shares.



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Specific disclosure: The analyst has received assistance from the company in preparation of the report, including reviewing it for factual accuracy.

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Review disclosure: The report was authored by the analyst named on the front page of the report and was reviewed and checked by Matthew Chen, Research Analyst.

Disclosure review. All the disclosures in the report have been reviewed and checked by Rob Telford, Corporate.